

CLAIMS FOR PATENT

5           1. (Amended) An optical fiber connection component  
which comprises a connection member having one or a  
plurality of through-holes for optical fibers provided  
with guides for rodlike coupling member at or near both  
side edges, rodlike coupling members, and a turned square  
10 U-shaped plug having a through-hole(s) or a groove(s) for  
inserting an optical fiber(s) and guide holes for rodlike  
coupling members on the bottom of the concavity of square  
U-shape, wherein said connection member is arranged  
slidably in said plug by being installed in the concavity  
15 of square U-shape of said plug by means of the rodlike  
coupling member inserted in the plug.

2. The optical fiber connection component according to  
Claim 1 wherein said guide is a through-hole or a groove.

3. The optical fiber connection component according to  
20 Claim 1 wherein said rodlike coupling member is cylindrical.

4. The optical fiber connection component according to  
Claim 1 wherein two or more connection members are arranged  
in the plug.

5. (Cancelled).

25           6. (Amended) An optical fiber connecting method which  
comprises opposing two optical fiber connection components  
comprising each a connection member having one or a  
plurality of through-holes for optical fiber provided  
with guides for rodlike coupling members at or near both  
30 side edges, rodlike coupling members, and a turned square  
U-shaped plug having a through-hole(s) or a groove(s) for  
inserting an optical fiber(s) and guide holes for rodlike  
coupling members on the bottom of the concavity of square  
U-shape, wherein said connection member is arranged  
35 slidably in said plug by being installed in the concavity

of square U-shape of said plug by means of the rodlike coupling members inserted in said plug in such a state  
5 that the optical fibers are inserted respectively in said through-holes for optical fiber, bringing the through-holes of both connection members face to face with each other, and sliding said connection members in a direction of the center axis of the optical fibers along the  
10 rodlike coupling members guided by the guides, so that the optical fibers are connected in the through-hole of one connection member.

7. The optical fiber connecting method according to Claim 6 wherein optical fibers inserted respectively in the  
15 through-holes of the connection members are fixed to the plugs by an adhesive.

8. The optical fiber connecting method according to Claim 6 which comprises attaching said two optical fiber connection components to an adapter and bringing the  
20 through-holes of them face to face each other.

9. (Amended) An optical fiber connection structure which is formed by opposing two optical fiber connection components comprising each a connection member having one or a plurality of through-holes for optical fiber  
25 provided with guides for rodlike coupling member at or near both side edges, rodlike coupling members, and a turned square U-shaped plug having a through-hole(s) or a groove(s) for inserting an optical fiber(s) and guide holes for rodlike coupling members on the bottom of the  
30 concavity of square U-shape, wherein said connection member is arranged slidably in said plug by being installed in the concavity of square U-shape of said plug by means of the rodlike coupling members inserted in said plug, in such a state that the optical fibers are  
35 inserted respectively in said through-holes for the

optical fibers, bringing the through-holes of both  
connection members face to face with each other, and  
5 sliding said connection members in a direction of the  
center axis of the optical fibers along the rodlike  
coupling members guided by the guides, so that the  
optical fibers are connected in the through-hole of one  
connection member.

10 10. The optical fiber connection structure according  
to Claim 9 wherein a refractive index matching agent is  
used for connecting the optical fibers.

11. The optical fiber connection structure according  
to Claim 9 wherein the optical fiber connection component  
15 is fixed to an adapter.